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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,631	04/14/2004	Toru Nishikawa	018976-224	4626
21839	7590	04/29/2005	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			SHAKERI, HADI	
POST OFFICE BOX 1404			ART UNIT	
ALEXANDRIA, VA 22313-1404			PAPER NUMBER	
			3723	

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/823,631

Applicant(s)

NISHIKAWA ET AL.

Examiner

Hadi Shakeri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 041104 02/07/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

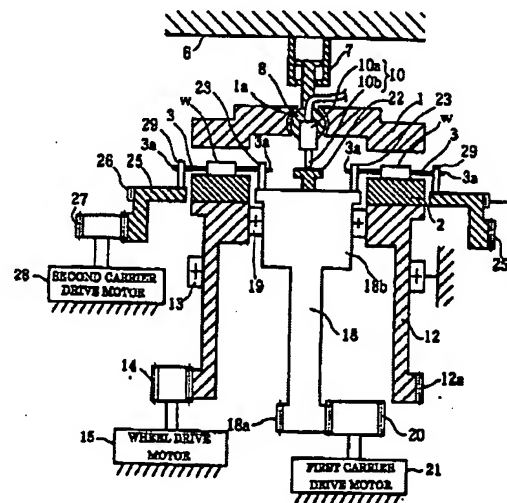
DETAILED ACTION***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Katagiri et al.

As admitted by the Applicant, pages 1-4, the polishing apparatus disclosed in Fig. 6, meets all the limitations of claim 1, i.e., upper and lower wheel, with a displacement-detection means (10) joined to a center of the upper wheel (1) reference table (22) arranged opposing the probe and internally connected tot the lower wheel, i.e., though (18b), (19) and (12), wherein the wafer is polished by the relative speed between the workpiece and at least one of the upper and lower wheels, except that the reference table is not integrally fixed (as interpreted by the disclosure, e.g., unitary with) to the lower wheel.



Katagiri et al. teaches mounting a sensor on one of the plates corresponding to the other plate to directly determine a width of the gap between the lapping surfaces in preventing errors due to undulated revolution of the surfaces, vibration and the like (Abstract).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of AAPA with the reference table fixedly attached to the lower wheel in view of Katagiri et al. to prevent errors due to undulated revolution of the surfaces, vibration and the like.

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It is also further noted that it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikes*, 86 USPQ 70.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over prior art (AAPA in view of Katagiri et al) as applied to claim 1, above further in view of JP 11-77521.

Prior art as noted above meets all the limitations of claim 3, except for disclosing non-contact displacement detection means comprising light emitting and receiving units. JP '521 teaches contact and non-contact type positioning means, wherein the non-contact positioning means comprises emitting and receiving units (24a) and (24b), Figs. 3 and 4. It is known in the art, as shown by JP' 521, to use both contact and non-contact positioning means. The two are art recognized functional equivalents. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify AAPA by replacing the displacement detection means, in view of JP' 521, as the two are art recognized functional equivalents.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

5. Applicant's arguments filed on 02/07/2005 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The combination of references as applied to the claims, meet the limitations as recited. The argument that Katagiri et al. merely discloses a carrier drive shaft (not 18 but 7-9) configured separately from the lower wheel causing expansion and contraction of the probe is not persuasive since the reference is attacked individually. The argument that the combination would merely teach adding transmitter and receiver to the apparatus of AAPA is not persuasive, since Katagiri et al. teaches avoiding errors due to undulating revelations of the surface plates (upper/lower wheel), vibration of the machine and the like, by using a sensor means fixedly mounted on a surface plate (upper or lower wheel), 02:27-42, in the embodiment that it discloses the displacement-detection means are attached to the lower and upper wheels directly. The detection means (10) in AAPA is integrally fixed to the upper plate, but the reference table is not integrally fixed to the lower plate, modifying AAPA in view of Katagiri et al., would mean to an engineer skilled in the art, to fix the table to the lower plate to avoid such false readings. The teaching of Katagiri et al. applied to AAPA meets the claims, as a general teaching to eliminate false reading due to vibration... and since claims lack any structures or arrangement to further define such attachment, the combination of references is considered to read over the claims. This teaching would not be applied to specific structures defining the integrally fixed attachment (unless the structures is disclosed to taught by the teaching

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reference), as evident by allowed parent application, but applying the general teaching to AAPA without the specific structure to the claims as recited is not considered by the Examiner as modifying the teaching reference, since no structure defining the limitation, integrally fixed, is recited in the instant claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Shakeri whose telephone number is (571) 272-4495. The examiner can normally be reached on Monday-Friday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hadi Shakeri
Primary Examiner
Art Unit 3723
April 19, 2005